High-Performance Mini-PC Barebone for Intel Core i7 CPUs up to 6 cores

Faster and smaller than probably any other machine on the market! This has been achieved thanks to the use of Intel Core i7 processors with 4 or 6 cores and up to 16 GB DDR3 memory on an X58 Express platform. The SX58J3 Barebone also includes two PCI-Express interfaces that support ATI CrossFire and NVIDIA SLI technologies. For ultra-high speeds, even in network settings, this model comes supplied with two Gigabit interfaces that can be combined if need be. Users will also welcome the huge range of easy-access connection options, with 10x USB and eSATA on front and back panels. Finally, the 80-PLUS-certified 500W power supply guarantees reliable performance.

XPC Barebone
SX58J3

Note: optical drive sold separately. Images for illustration purposes only.

Feature Highlights

J3 chassis	• Black aluminium chassis cover • Drive bays: 1x 5.25“, 2x 3.5“
Chipset	• Intel X58 Express + ICH10R
CPU	• Socket 1366 • Supports Intel® Core™ i7 processors • Supports Quad-Core and Six-Core • Supports 4.8/6.4 GT/s QPI • Shuttle I.C.E. Heatpipe cooling
Slots	• 2x PCI-Express x16 (v2.0) • Supports Ati CrossFire & NVIDIA SLI
Memory	• Supports 4x DDR3-1066/1333/1600(OC)* • Supports Triple Channel + 1 • Up to 16 GBytes total size
Drive connectors	• 4x SATA (internal) • 2x External SATA (1x front, 1x rear) • Supports RAID, NCQ, eSATA power supply
Other connectors	• 7.1-ch HD-audio • Dual GigaBit LAN (supports Teaming) • USB 2.0 (2x front, 8x rear, 1x onboard) One front USB is combined with eSATA
Power supply	• 500 Watt mini power supply 80 PLUS Bronze compliant
Application	• Performance

Produktname: SX58J3
Bestellnummer: PC-SX58J3

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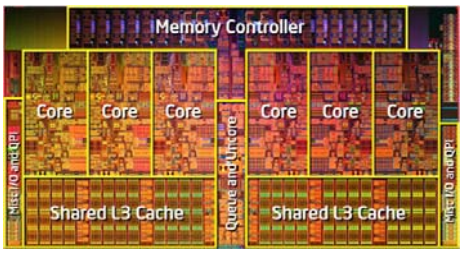
Supports Intel Core i7-980X Six-Core



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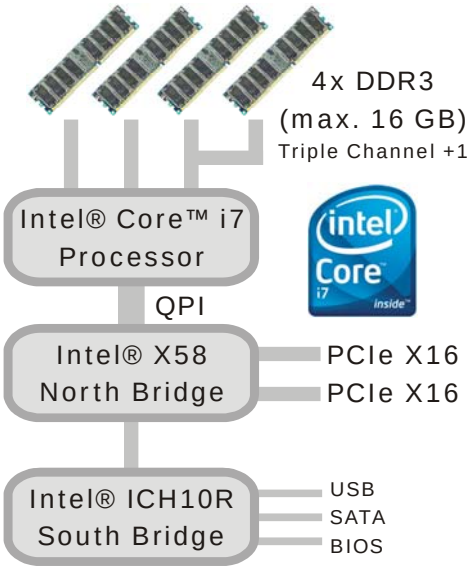
Shuttle XPC Barebone SX58J3 – Special Product Features

The new J chassis series: a clean and modern look

Shuttle has always placed great emphasis on the interior and exterior aesthetics of the XPC, with the belief that a good blend of style and form factor allows the Shuttle to be attractive, versatile, and work well in almost any environment - whether the living room, bedroom, or office. With the new J Series, Shuttle retains its trademark appearance and adds a clean, modern look to the front of the XPC. The new J3 Series will also be the first to bear the new XPC logo, featuring a striking "X" mark to signify the evolution of the XPC product line.



Based on new Intel Nahalem architecture

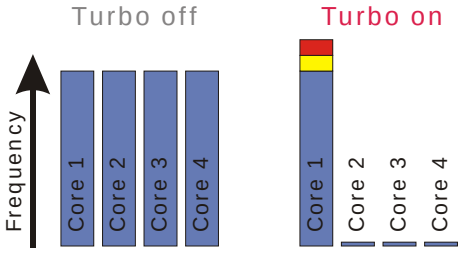
The Shuttle XPC Barebone SX58J3 is based on the new core microarchitecture, codenamed Nehalem, which brings some major changes not only to the the processor architecture but also the system architecture. These are most significant changes:

- The memory controller has moved from the chipset to the processor and features a triple channel DDR3 interface.
- The Intel® QuickPath Interconnect (QPI) replaces the legacy front side bus between processor and chipset.

Supports Intel Core i7 processors with Socket 1366

SX58J3 features Socket 1366 and supports the Intel® Core™ i7 processors which come with a native quad-core or six-core design, where all CPU cores sit on the same piece of silicon which share a massive level 3 cache. In addition, each core supports Hyper-threading which enables this processors process eight or twelve threads simultaneously, making it even more massively parallel and powerful than the current Core 2 Quad CPUs.

Built-in overclocking "Turbo" mode



Originally introduced on mobile Penryn, Turbo mode simply increases the operating frequency of the processor if conditions are cool enough for the CPU to run at the higher frequency. Each Nehalem can run its four cores at up to 133MHz higher than the stock frequency (e.g. 3.33GHz in the case of the 3.2GHz 965 model), or if only one core is active then it can run at up to 266MHz higher than stock (3.46GHz up from 3.2GHz). Benchmarks show an increase of the overall performance by 2% to 7% if Turbo mode is enabled in the BIOS setup.

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Dynamic Overclocking Technology (D.O.C.) *)

This is the overclocking function in the BIOS Setup, which is designed to detect the load balance of CPU while running programs, and to adjust the best CPU frequency automatically. When the mainboard detects CPU is running programs, it will speed up CPU automatically to make the program run smoothly and faster. When the CPU is temporarily suspending or staying in the low load balance, it will restore the default settings instead.

Integrated Cooling Engine (I.C.E.)

Shuttle's XPCs offer the power of a desktop PC in a form factor one-third the size. In order to ensure proper airflow inside a smaller unit, more advanced cooling technologies have been developed and implemented in the Shuttle XPC. Shuttle's industry-leading Integrated Cooling Engine (I.C.E.) heatpipe technology delivers efficient cooling and is exceptionally quiet.

PCI-Express V2.0 for high-performance graphics cards

The Shuttle XPC Barebone SX58J3 is equipped with one PCI-Express x16 Version 2.0 slot delivering a bandwidth of up to 16GB/s, twice the speed of PCI-E 1.0, thus providing plenty of potential for the newest graphics cards. It is downward compatible, allowing use for most of the present graphics cards as well.

Supports large dualslot graphics cards

The Shuttle XPC Barebone SX58J3 surpports large dual-slot graphics cards like ATI Radeon HD4870 or NVIDIA Geforce GTX280 which occupy two slots. Please note, that in this case you cannot use the second slot for another expansion card.

Supports two PCI Express x16 graphics cards

The Shuttle XPC Barebone SX58J3 Deluxe supports two slots PCI Express x16 Version 2.0 delivers up to 16GB/s bandwidth per port, double that of PCIe 1.0, ensuring plenty of bandwidth for future graphics cards. Two graphics cards can be used to enable 4-monitor-operating or ATI CrossFireX™/ NVIDIA SLI mode for leading-edge gaming performance.

Supports up to 16GB of DDR3 memory

This Shuttle XPC supports up to 16GB DDR3 memory which is ideal for workstations powered by 64-bit operating systems, enabling users to take full advantage of high-performance configurations.

500W power supply with 80 PLUS BRONZE logo

The Shuttle XPC Barebone SX58J3 is equipped with a rock stable 500W power supply which has been tested with the latest graphics cards and powerful Core i7 processors. Its 80 Plus Bronze logo indicates that it provides more than 82/85/82% energy efficiency at 20/50/100% of rated load which reduces energy consumption and increases the computers reliability.

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New Era of All-Solid Capacitor Shuttle Mainboards

By using all-solid capacitors Shuttle mainboards provide industry leading stability, reliability and longevity for PC gaming and entertainment systems. The average lifespan for a solid capacitor is more than six times greater than the more common and less expensive electrolytic capacitors.

External Serial ATA ports on front and back panel

In addition to the eSATA port at the back panel, the SX58J3 also comes with one eSATA at the front panel for plugging in high-speed external hard-drives. The eSATA interface is up to three times faster than the USB 2.0 standard.

Supports RAID functionality

This Shuttle XPC features several internal and external Serial ATA connectors which also support the high performance RAID functions level 0, 1, 5 and 0+1. It is the ideal solution to enhance hard disk performance and data back up protection without the cost of add-on cards.

Dual eSATA with External Power

The back panel provides two external Serial ATA ports and a power port. The included cables make it a snap to connect two external hard drive to your XPC. The Serial ATA interface is up to six times faster than USB 2.0/Firewire.

Dual Gigabit LAN with Teaming Support

This XPC features even two high-speed Gigabit LAN ports. The teaming function allows you to group both available network adapters together to function as a single adapter - a method of creating a virtual LAN. The benefit of this approach is that it enables load balancing and failover.

*) Overclocking Warning: Please note there is a certain risk involved with overclocking, including adjusting the setting in the BIOS or using third-party overclocking tools. Overclocking may affect your system stability or even cause damage of the components and devices of your system. It is done at your own risk and expense. Shuttle cannot be held responsible for possible damage caused by overclocking.

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Shuttle XPC Barebone SX58J3 Specifications

Chassis	J3-type chassis, color: black Case cover made of aluminum, body made of steel Storage bays: 1 x 5.25" external, 2 x 3.5" internal Front door for I/O and card reader Kensington Security Slot at the back panel (also called a K-Slot or Kensington lock) as a part of an anti-theft system Dimensions: 33 x 21,.5 x 19 cm (LWH without foot rubber) = 13.5 litres Weight: 6.8 kg net / 7.5 kg gross
Mainboard	Shuttle FX58V2, Shuttle form factor, proprietary design for XPC SX58J3 Chipset: Intel X58 Express (codenamed Tylersburg) + ICH10R (I/O Controller Hub) Solid Capacitors for excellent heat resistance and enhanced system durability
Power Supply	500 Watt mini PSU, AC input voltage: 100~240V 80PLUS Bronze certified (>82/85/82% energy efficiency at 20/50/100% load) Active PFC circuit (Power Factor Correction) ATX power connectors: 20 pin + 8 pin (12V)
Processor Support	Supports Intel® Core™ i7 processors with Socket 1366 Supports 900 series Quadcore processors and Core i7-980X Six-Core Please refer the support list for detailed processor support information: http://global.shuttle.com/support_list.jsp The previous Front Side Bus (FSB) by the new QPI (QuickPath Interconnect) which features up to 6.4GT/s (3.2GHz) and a maximum transfer rate of 25.6GB/s. Supports Dynamic Overclock feature (DOC): Easily overclock function to be enabled through a simple BIOS setting. *)
Processor Cooling	Shuttle Integrated Cooling Engine (I.C.E.) Heatpipe-Technology
Memory Support	4 x 240 pin slots, supports 3+1 channel configuration (Triple Channel) Supports DDR3-1066/1333 SDRAM memory (PC3-8500/10600) Supports DDR3-1600 in overclocking mode *) Max. 4 GB per DIMM, up to a total size of 16 GB Warning: DIMMs with voltage over 1.65V may damage your CPU. Shuttle recommends you install the DIMMs with voltage setting below 1.6V.
Expansion Slots	2x PCI-Express x16 Version 2.0 expansion slots for x16 graphics cards (full 16 lanes each slot) Supports Dual Graphics card by ATI CrossFireX™ or NVIDIA SLI™ Technology. Two graphics cards can be used to enable 4-monitor-operating or ATI CrossFireX™ / NVIDIA SLI™ mode for leading-edge gaming performance. Supports two single-slot or one double-width graphics card.
8-channel Audio	7.1 channel High Definition Audio with Realtek ALC888 codec Analog: line-out (8-ch), line-in, microphone, Audio AUX-in (onboard)

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Dual Gigabi LAN	2x RJ45 connectors supports Teaming-Mode**) Marvell 8057 Ethernet network controller IEEE 802.3u 1000Base-T compliant Supports 10 / 100 / 1.000 MBit/s operation Supports Wake-on-LAN
Drive connectors	Serial-ATA II, 3 Gb/s (300 MB/s) bandwidth 4x internal (SATA, back panel) 2x external (eSATA, 1x front, 1x back) Power connector for eSATA hard disks (incl. cable) Intel Matrix Storage Technology enabled striping and mirroring Supports RAID mode 0, 1, 5, 10 Supports Native Command Queuing (NCQ)
Front panel connectors	Microphone Headphone (Line-out) USB 2.0 Combo: eSATA / USB 2.0 4-in-1 Card Reader Power button Power indicator (blue LED) HDD indicator (orange LED)
Back panel connectors	8x USB 2.0 2x GigaBit LAN (RJ45) 1x External Serial ATA Hotplug (eSATA) Power connector for eSATA hard disks (incl. cable) 8-ch Audio line-out (2x front, 2x rear, bass/center, surround/back) Audio Line-in Clear CMOS button
Other connectors	1x USB 2.0 (1x5 pins) 2x fan connectors (4 pins and 3 pins) 1x Digital Audio S/PDIF output (3 Pins) 1x Audio AUX input LPC interface port ***)
Accessories	Driver DVD ROM Quick Installation Guide (multi-language) 2x SATA cables (pre-installed) IDE cable for optical drive External SATA (eSATA) cable One 2x2 pin power cable for two eSATA hard disks 1x Power cord Screws Heatsink compound

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***) Overclocking Warning**

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****) Teaming Mode**

The teaming function allows you to group both available network adapters together to function as a single adapter - a method of creating a virtual LAN. The benefit of this approach is that it enables load balancing and failover.

*****) Optional slot bracket adapter for serial and prallel ports**

You can install an optional slot bracket adapter which can be used to provide one serial and one parallel port at the back panel. The cable of this adapter will be connected to the onboard LPC port and one expansion slot will be occupied by the adapter.

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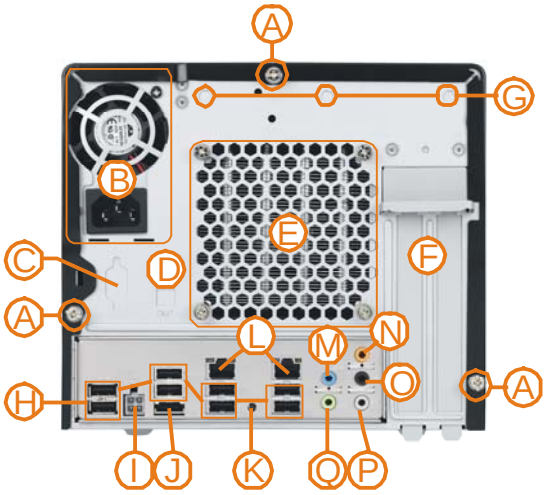
Shuttle XPC Barebone SX58J3 – Connectors and Components

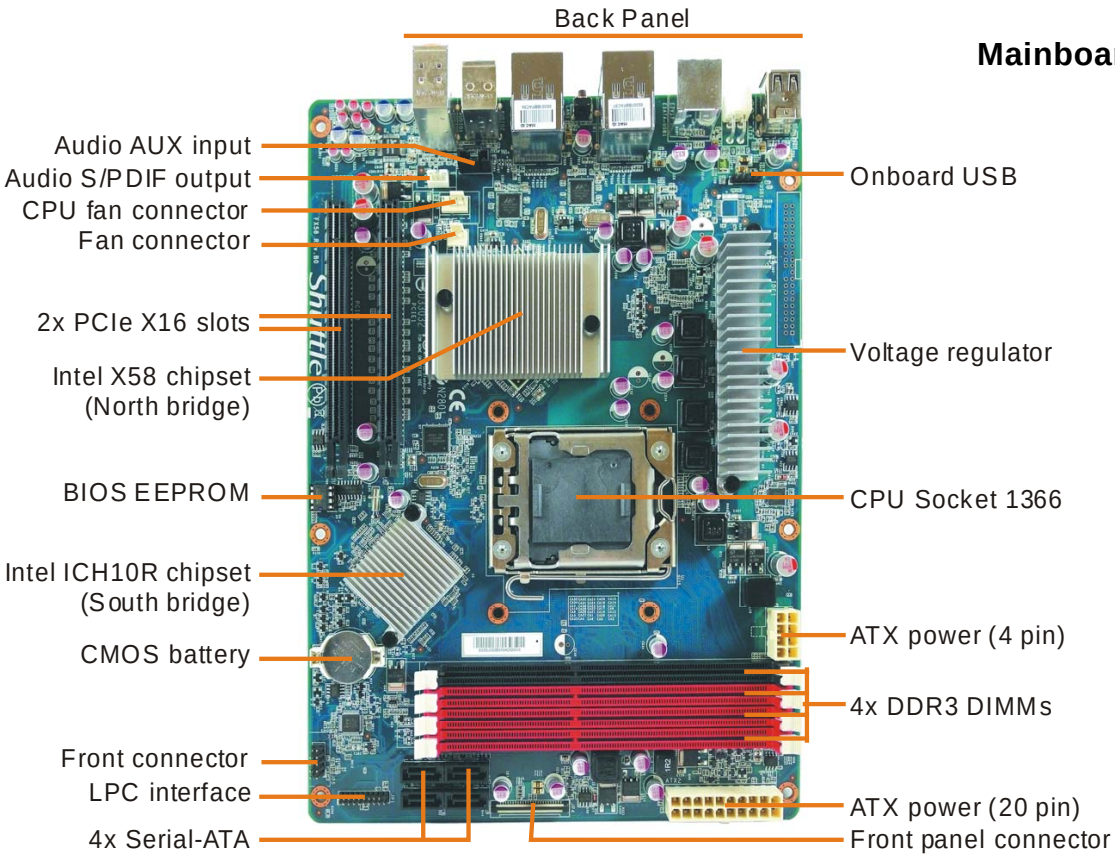
Front Panel

Back Panel



1	Bay for optical drive	**A**	Three thumbscrews	**I**	Power port for eSATA
2	Eject button	**B**	Power supply with fan and AC power socket	**J**	eSATA port
3	Hard disk LED			**K**	Clear CMOS button
4	Power switch, Power LED	**C**	Optional serial port	**L**	2x Gigabit LAN ports
5	4-in-1 card reader	**D**	Optional S/PDIF output	**M**	Audio Line-in
6	USB 2.0 port	**E**	Heat pipe cooling fan	**N**	Audio Center/Bass
7	Microphone input	**F**	2x PCIe X16 slots	**O**	Audio Surround-Back
8	Headphone output	**G**	Optional WLAN	**P**	Audio Surround-Side
9	eSATA+USB combo port	**H**	8x USB 2.0 ports	**Q**	Audio Surround-Front

Mainboard



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